

Patent claims

1. A filter body with internal cavities, for example pores or passages, for use in particulate filters for internal combustion engines, characterized in that it is produced using micro-patterning processes employed in semiconductor technology.
2. The filter body as claimed in claim 1, characterized in that the micro-patterning process used is an etching process or patterned deposition or a combination of the two processes.
3. The filter body as claimed in one of the preceding claims, characterized in that it has regions with cavities of different dimensions.
4. The filter body as claimed in claim 3, characterized in that the dimensions of the cavities decrease in the direction of the flow.
5. The filter body as claimed in claim 4, characterized in that the size of the cavities remains constant in parts but decreases in the direction of flow.
6. The filter body as claimed in claim 4, characterized in that the dimensions of the cavities decrease continuously in the direction of flow.
7. The filter body as claimed in one of the preceding claims, characterized in that it is formed at least in part from electrically conductive material.
8. The filter body as claimed in claim 7, characterized in that it has regions of different specific conductivity.
9. The filter body as claimed in one of the preceding claims, characterized in that it is formed at least in part from silicon, germanium, a silicon or germanium compound or a solid solution thereof.
10. The filter body as claimed in one of the preceding claims, characterized in that at least in part it has a catalytically active coating.

11. The filter body as claimed in one of the preceding claims, characterized in that at least in part it has an oxide layer.
12. A particulate filter for motor vehicles, having a housing with at least one gas inlet and at least one gas outlet, which particulate filter includes a filter body as described in the preceding claims.
13. The particulate filter for motor vehicles as claimed in claim 12, characterized in that it additionally includes at least one filter body made from a sintered material.
14. A vehicle having a particulate filter with a housing having at least one gas inlet and at least one gas outlet, which includes a filter body as claimed in claims 1-11.